

REMARKS/ARGUMENTS

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In view of the foregoing amendments and the following remarks, the applicant respectfully submits that the pending claims comply with 35 U.S.C. § 101, and are not rendered obvious under 35 U.S.C. § 103. Accordingly, it is believed that this application is in condition for allowance. **If, however, the Examiner believes that there are any unresolved issues, or believes that some or all of the claims are not in condition for allowance, the applicant respectfully requests that the Examiner contact the undersigned to schedule a telephone Examiner Interview before any further actions on the merits.**

The applicant will now address each of the issues raised in the outstanding Office Action.

Rejections under 35 U.S.C. § 101

Claims 20-28 are rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter. The applicant respectfully requests that the Examiner reconsider and withdraw this ground of rejection in view of the following.

The Examiner contends that these claims recite descriptive material not recited as being recorded on a computer readable medium. (See Paper No. 20060604, page 2.) These claims have been amended to recite a computer-readable medium rather than a machine-readable medium.

Further, as was the case in In re. Lowry, 32 U.S.P.Q.2d 1031 (Fed. Cir. 1994), claims 20-28 are more than a mere abstraction -- the claimed data structures are specific structural elements in memory. Further, they provide tangible benefits. Specifically, they allow a network path determination constraint to be expressed as an executable instruction. The data structures are clearly limited to a practical application. Thus, these claims are functional material recorded on a computer-readable medium. The Patent Office has recently instructed:

When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized.

"Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility", OG Notices: 22 November 2005, Annex IV.

As can be appreciated from the foregoing, claims 20-28, as amended, are clearly statutory.

Rejections under 35 U.S.C. § 103

Claims 2, 3, 5, 6, 8-17, 20-28, 37-39, 63, 70, 72 and 79-84 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,721,269 ("the Cao patent") in view of U.S. Patent No. 5,600,638 ("the

Bertin patent"). The applicant respectfully requests that the Examiner reconsider and withdraw this ground of rejection in view of the following.

Before addressing at least some of the patentable features of various claims, applicant will first introduce each of the cited references.

The Cao Patent

The Cao patent concerns predetermining primary and secondary (for backup) label-switched paths (LSPs). The source (or ingress) router determines the LSPs and defines nodes in explicit routes (ERs). The sink (or egress) router selects one of the determined LSPs to use, as well as a secondary LSP. Nodes can determine other nodes within an abstract router (a representation of a group of routers) if the node specified in the ER path is a "loose node".

The Cao patent does not teach a message including a path determination constraint(s) expressed as a program including one or more executable instructions. Indeed, the Examiner concedes that the Cao patent does not teach such a message. (See Paper No. 20060604, page 4.) In an attempt to compensate for this deficiency of the Cao patent, the Examiner relies on the Bertin patent.

The Bertin Patent

The Bertin patent concerns determining an optimal routing path between an originating node and a destination node in a network, in a way that reduces computation time, using a two phase approach. Specifically, in the first phase, the Bertin patent

identifies "principal paths" including minimal hop count and minimal transmission delay between the originating node and the destination node and identifies "principal" and "secondary" links. In the second phrase, the Bertin patent tries to determine an optimal path between the originating and destination nodes using only principal links. This is referred to as the "accelerated version." (See, e.g., Figure 6.) If a destination node can not be reached using only the principal links, an optimal path using principal and secondary links is determined. (See, e.g., column 7, line 50 through column 8, line 7.) This is referred to as the "conventional version." (See, e.g., Figure 7.) Trying first to determine a path using only principle links is preferred in order to reduce the computation time needed to determine the path. (See, e.g., column 11, lines 16-22) This reduction is due to the reduced number of links that need to be processed. For example, Figure 11 shows only 10 principle links considered with an accelerated version, as compared with Figure 12 which shows 54 principle and secondary links considered with a conventional version. (See, e.g., column 16, lines 16-36.)

Although the techniques presented in the Bertin patent can use algorithms, code and routines, which the Examiner concludes read on a plurality of executable instructions, such algorithms, code and routines are not carried in a message (from another node of the network) as at least one network path determination constraint. Furthermore, there is no suggestion to modify the Bertin patent to have a message (from another node of the network) carry at least one network path determination constraint as program instructions. Indeed, all of the

instructions apparently reside on the node determining the path.

***At Least Some Patentable Features of the Claimed
Invention***

Each of independent claims 5, 6, 11, 20, 37-39 and 70 is not rendered obvious by the Cao and Bertin patents because these patents, either taken alone or in combination, neither teach, nor suggest, a message (from another node of the network) carrying at least one network path determination constraint expressed in the form of a program including one or more executable instructions (e.g., in the various contexts claimed.) Basically, as the Examiner concedes that the Cao patent does not teach this. Although the Bertin patent discusses code used to determine paths, it does not teach, nor does it suggest, a message (from another node of the network) carrying at least one network path determination constraint expression in the form of a program including one or more executable instructions.

These claims have been amended to recite that the message is carried from other node of the network.

Thus, each of independent claims 5, 6, 11, 20, 37-39 and 70 are not rendered obvious by the Cao and Bertin patents for at least the foregoing reason. Since claims 63 and 80 depend from claim 6, since claims 2-17 and 81 depend, either directly or indirectly from claim 11, since claims 21-28 depend, either directly or indirectly, from claim 20, and since claims 82-84 depend from claims 37-39, respectively, these claims are similarly not rendered obvious by the Cao and Bertin patents.

Claims 34, 35 and 57 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,000,028 ("the Chernoff patent") in view of the Bertin patent. The applicant respectfully requests that the Examiner reconsider and withdraw this ground of rejection in view of the following.

The Examiner relies on the Bertin patent as teaching a message to be communicated between different network nodes in a communications network, the message comprising a program including one or more executable instructions, each executable instruction encoding at least one network path determination constraint. However, as discussed above, although the Bertin patent discusses code used to determine paths, it does not teach, nor does it suggest, a message (from another node of the network) carrying at least one network path determination constraint expression in the form of a program including one or more executable instructions. The purported teaching of the Chernoff patent does not compensate for this deficiency. Thus, independent claim 34 is not rendered obvious by the Bertin and Chernoff patents for at least this reason. Since claim 35 depends from claim 34, and since claim 57 depends from claim 35, these claims are similarly not rendered obvious by these patents.

Claims 31 and 32 are rejected under 35 U.S.C. § 103(a) as being unpatentable over the Chernoff and Bertin patents in view of the Cao patent. The applicant respectfully requests that the Examiner reconsider and withdraw this ground of rejection in view of the following.


Claims 31 and 32 depend, either directly or indirectly, from **allowed claim 29**. In particular, the allowable features of claim 29 were expressly discussed. (See Paper No. 20060604, page 8.) In fact, even claims 31 and 32 were indicated as being allowable. Accordingly, the is ground of rejection is improper, and is apparently the result of an inadvertant error.

Conclusion

In view of the foregoing amendments and remarks, the applicant respectfully submits that the pending claims are in condition for allowance. Accordingly, the applicants request that the Examiner pass this application to issue.

Respectfully submitted,

September 18, 2006

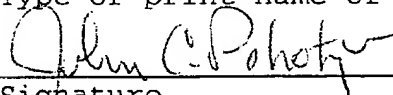

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